What is claimed is

1. An atomic line filter comprising

(A) a metal vapor cell having an optical entrance port and an optical exit port and containing a metal vapor defining a first excited energy state, defining a first resonant frequency, and a second excited energy state and having at least one absorption line, at or near a desired filter wavelength, said absorption line being equal, in energy, to a difference between the second excited state and the first excited state;

(B) at least one magnet for imposing on said metal vapor a magnetic field to produce polarization rotation near said at least one absorption line;

(C) a first polarizer positioned to block polarized light at a first polarization from entering said vapor cell through said entrance port;

(D) a second polarizer oriented perpendicular to said first polarization and located across the path of light exiting said exit port so as to block light exiting said vapor cell that is polarized perpendicular to said first polarization;

(E) a pump light source for producing light at said first resonant frequency for pumping said metal vapor from said ground state to said first excited state;

wherein said metal vapor under the influence of said magnetic field produces a polarization rotation of light within a narrow spectral band near said absorption line permitting light within this spectral band to pass through said second polarizer whereas all light in a much wider spectral range is not rotated in polarization and is blocked by either the first polarizer or the second polarizer.

2. The filter as in Claim 1 wherein said pump light source is a pump laser system.

3. The filter as in Claim 2 wherein said pump laser system is a diode laser system producing a pump beam

4. The filter as in Claim 3 wherein said diode laser further comprises two frequency locking etalons and two frequency detectors for monitoring sample portions of said pump beam.

5. The filter as in Claim 4 wherein said two etalons are tuned to produce transmission peaks on both sides of said first resonant frequency and feedback control to maintain said diode laser operation at said resonant frequency based on input signals from said two frequency locking detectors.

6. The filter as in Claim 1 wherein said metal vapor is rubidium.

7. The filter as in Claim 1wherein at least one magnet is two permanent magnets.

8. The filter as in Claim 7 wherein said two permanent magnets are two ring magnets.

9. The filter as in Claim 1 wherein said at least one magnet is an electromagnet.

10. The filter as in Claim 1 wherein said vapor cell defines beam direction and at least one magnet is oriented to produce a magnetic field parallel to said beam direction.

11. The filter as in Claim 1 wherein said vapor cell defines a beam direction and said at least one magnetic is oriented to produce a magnetic field perpendicular to said beam direction.

12. A tracking system comprising:

(A) a metal vapor cell having an optical entrance port and an optical exit port and containing a metal vapor defining a first excited energy state, defining a first resonant frequency, and a second excited energy state and having at least one absorption line, at or near a desired filter wavelength, said absorption line being equal, in energy, to a difference between the second excited state and the first excited state;

(B) a beacon laser system for producing a beacon laser beam at a wavelength within said narrow spectral band.

13. The tracking system as in Claim 12 wherein said beacon laser is configured to produce a beacon laser beam with a divergence of at least 20 degrees.

14. The tracking system as in Claim 12 wherein said beacon laser using system comprises two frequency locking etalons and two frequency locking detectors for monitoring sample portions of said beacon laser beam.

15. The filter as in Claim 14 wherein said two etalons are tuned to produce transmission peaks on both sides of said first resonant frequency and feedback control to maintain said diode laser operation at said resonant frequency based on input signals from said two frequency locking detectors.